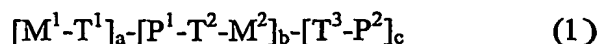


**CLAIMS:**

1. A compound of formula (1)



or a salt thereof,

wherein

$M^1$  and  $M^2$  are the same or different and are each a metal coordination complex, wherein at least one of  $M^1$  and  $M^2$  is capable of interacting with a major groove or minor groove of a polynucleotide;

$P^1$  and  $P^2$  are the same or different and are each a pyrrole-imidazole polyamide;

$T^1$ ,  $T^2$  and  $T^3$  are the same or different and are each a linker group;

$a$  is 0, or 1;

$b$  is an integer selected from 1, 2, 3, 4 and 5;

wherein when  $b$  is an integer greater than 1, each  $P^1$ , each  $T^2$  and each  $M^2$  may be the same or different; and

$c$  is 0, 1 or 2; wherein when  $c$  is 2, each  $P^2$  may be the same or different and each  $T^3$  may be the same or different.

2. A compound according to claim 1,  $a = 0$ ,  $b = 1$ , and  $c = 0$ .

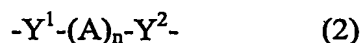
3. A compound according to claim 1, wherein  $M^1$  and  $M^2$  are the same or different and are individually selected from a platinum complex, a palladium complex, a ruthenium complex, and a rhodium complex.

4. A compound according to claim 1, wherein  $M^1$  and  $M^2$  are independently selected from cis -Pt(NH<sub>3</sub>)<sub>2</sub>Cl and trans -Pt(NH<sub>3</sub>)<sub>2</sub>Cl.

5. A compound according to claim 1, wherein each pyrrole-imidazole polyamides ( $P^1$ ,  $P^2$ ) independently comprises a plurality of heterocyclic rings selected from the group consisting of optionally substituted N-methylimidazole (Im), optionally substituted N-methylpyrrole (Py) and optionally substituted 3-hydroxy N-methylpyrrole (Hp).

6. A compound according to claim 5, wherein each pyrrole-imidazole polyamide independently comprises 3 heterocyclic rings or 4 heterocyclic rings.

7. A compound according to claim 1, wherein the linker groups ( $T^1$ ,  $T^2$ ,  $T^3$ ) are the same or different and each has the formula (2):



wherein

$Y^1$  and  $Y^2$  may be the same or different and are independently selected from NH, -NH<sub>2</sub>, C=O, C=S, C=NH, O, OH, S, SH, S(O), S(O)<sub>2</sub>, NR<sup>3</sup>, NHR<sup>3</sup>, N(R<sup>3</sup>)<sub>2</sub>, an optionally substituted cycloalkylamine, an optionally substituted cycloalkyldiamine, and an optionally substituted heteroaryl group (e.g., an optionally substituted N-heteroaryl group such as pyridyl, phenanthrolyl, 2,2'-bipyridyl); where each R<sup>3</sup> is independently selected from alkyl, cycloalkyl, aryl or heteroaryl;

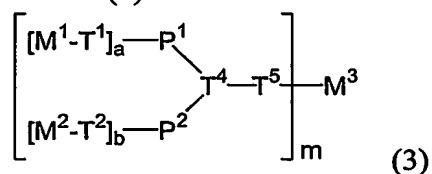
A is selected from an optionally substituted C<sub>1-10</sub> alkylene, an optionally substituted C<sub>2-10</sub> alkenylene, an optionally substituted C<sub>2-10</sub> alkynylene, an optionally substituted C<sub>3-6</sub> cycloalkylene, an optionally substituted C<sub>6-10</sub> aryl, C=O, C=S, and C=NH, NH, O, S, NH<sub>2</sub>, OH, SH, S(O), S(O)<sub>2</sub>, amino acids, and spermidine; and

n is an integer selected from 1 to 20,

wherein when n is an integer greater than 1, each (A) group may be the same or different.

8. A compound according to claim 7, wherein each linker group independently comprises a group selected from -NH-(CH<sub>2</sub>)<sub>n</sub>-NH<sub>2</sub>-, -NH-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-O-CH<sub>2</sub>CH<sub>2</sub>-O-CH<sub>2</sub>CH<sub>2</sub>-O-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>-NH<sub>2</sub>-, -NH-C(O)-CH<sub>2</sub>CH<sub>2</sub>-NH-C(O)-CH<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>-, -S-(CH<sub>2</sub>)<sub>n</sub>-O-(CH<sub>2</sub>)<sub>n</sub>-S-, or -NH-(CH<sub>2</sub>)<sub>n</sub>-O-, and -C(O)-NH-CH<sub>2</sub>-C(O)-NH-CH(CH<sub>2</sub>SH)-C(O)-NH-, where n is an integer from 1 to 20.

9. A compound of formula (3):



where

$M^1$ ,  $M^2$ ,  $M^3$  are the same or different and are each a metal coordination complex as defined above for  $M^1$  and  $M^2$  of formula (1), wherein at least one of  $M^1$ ,  $M^2$  and  $M^3$  is capable of interacting with a major groove or minor groove of a polynucleotide;

$P^1$  and  $P^2$  are the same or different and are each a pyrrole-imidazole polyamide as defined above for formula (1);

$T^1$  and  $T^2$  are the same or different and are each a linker group of formula (2) as defined above for formula (1);

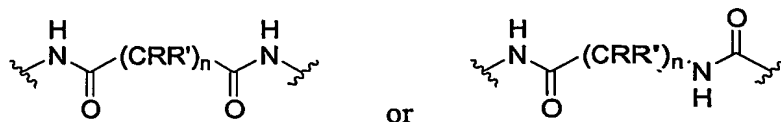
$T^5$  is a linker group of formula (2) as defined above for  $T^1$  and  $T^2$  of formula (1), wherein one of  $Y^1$  and  $Y^2$  is bound to a metal complex  $M^3$  and the other of  $Y^1$  and  $Y^2$  is covalently bound to  $T^4$ ;

$T^4$  is a linker group of formula (2) as defined above for  $T^1$  and  $T^2$  of formula (1), wherein  $Y^1$  is covalently bound to a pyrrole-imidazole polyamide,  $Y^2$  is covalently bound to a pyrrole-imidazole polyamide, and wherein one  $Y^1$ ,  $Y^2$  and  $A$  is covalently bound to  $T^5$ ;

- 5         $a$  and  $b$  are independently selected from 0 and 1; and  
           $m$  is 1, 2, 3 or 4.

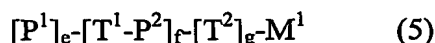
In one embodiment,  $T^4$  is covalently bound to  $T^5$  via  $A$ .

- 10        10. A compound according to claim 9, wherein  $m$  is 1 or 2.  
          11. A compound according to claim 9, wherein  $a = 0$ ,  $b = 1$ , and  $m = 1$ .  
          12. A compound according to claim 9, wherein  $T^4$  comprises



- wherein  $n$  is an integer selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10,  
          each  $(CRR')$  is independently an optionally substituted alkylene; and  
          wherein in one  $(CRR')$ ,  $R'$  is absent and  $CR$  is covalently bonded to  $T^5$ .

- 15        13. A compound of formula (5):



         or a salt thereof,

         wherein

- 20         $P^1$  and  $P^2$  are the same or different and are each a pyrrole-imidazole polyamide as  
          defined in claim 1;

$T^1$  and  $T^2$  are the same or different and are each a linker group as defined in claim  
          1;

$e$  is 0 or 1;

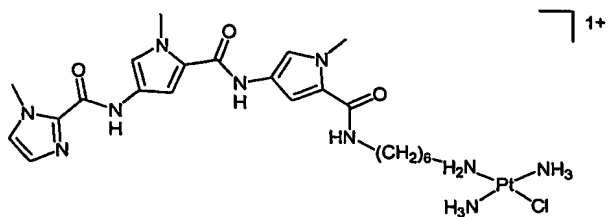
- 25         $f$  is an integer selected from 1, 2, and 3; wherein when  $f$  is an integer greater than 1,  
          each  $T^1$  and each  $P^2$  may be the same or different;

$g$  is 0 or 1; and

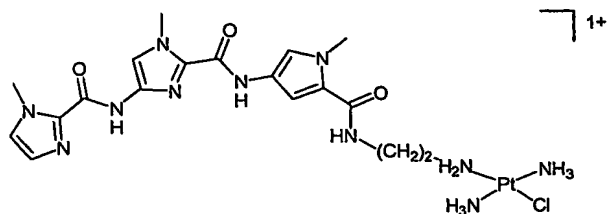
$M^1$  is a metal coordination complex capable of interacting with a major groove or  
          minor groove of a polynucleotide as defined in claim 1.

- 30        14. A compound according to claim 1, wherein said compound is selected from

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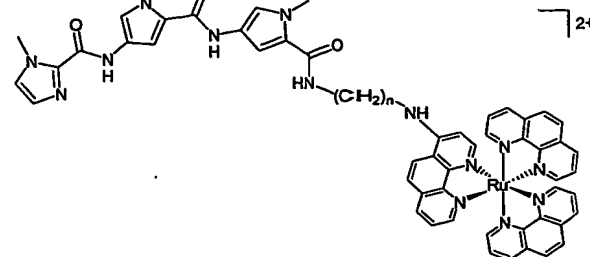
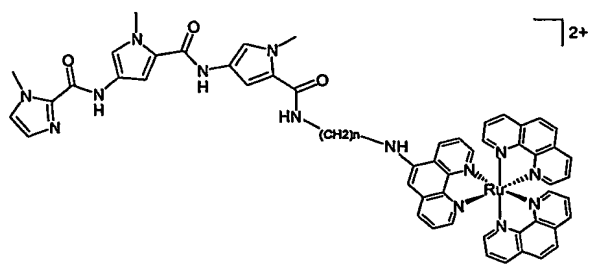
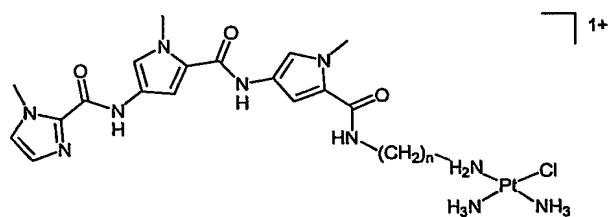
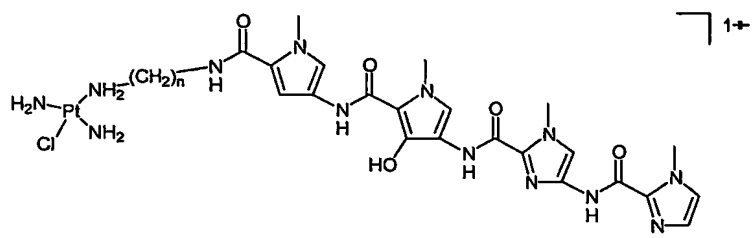


“trans-Im/Py/Py-[CONH(CH<sub>2</sub>)<sub>6</sub>-NH<sub>2</sub>)Pt(NH<sub>3</sub>)<sub>2</sub>Cl]<sup>+</sup>”;

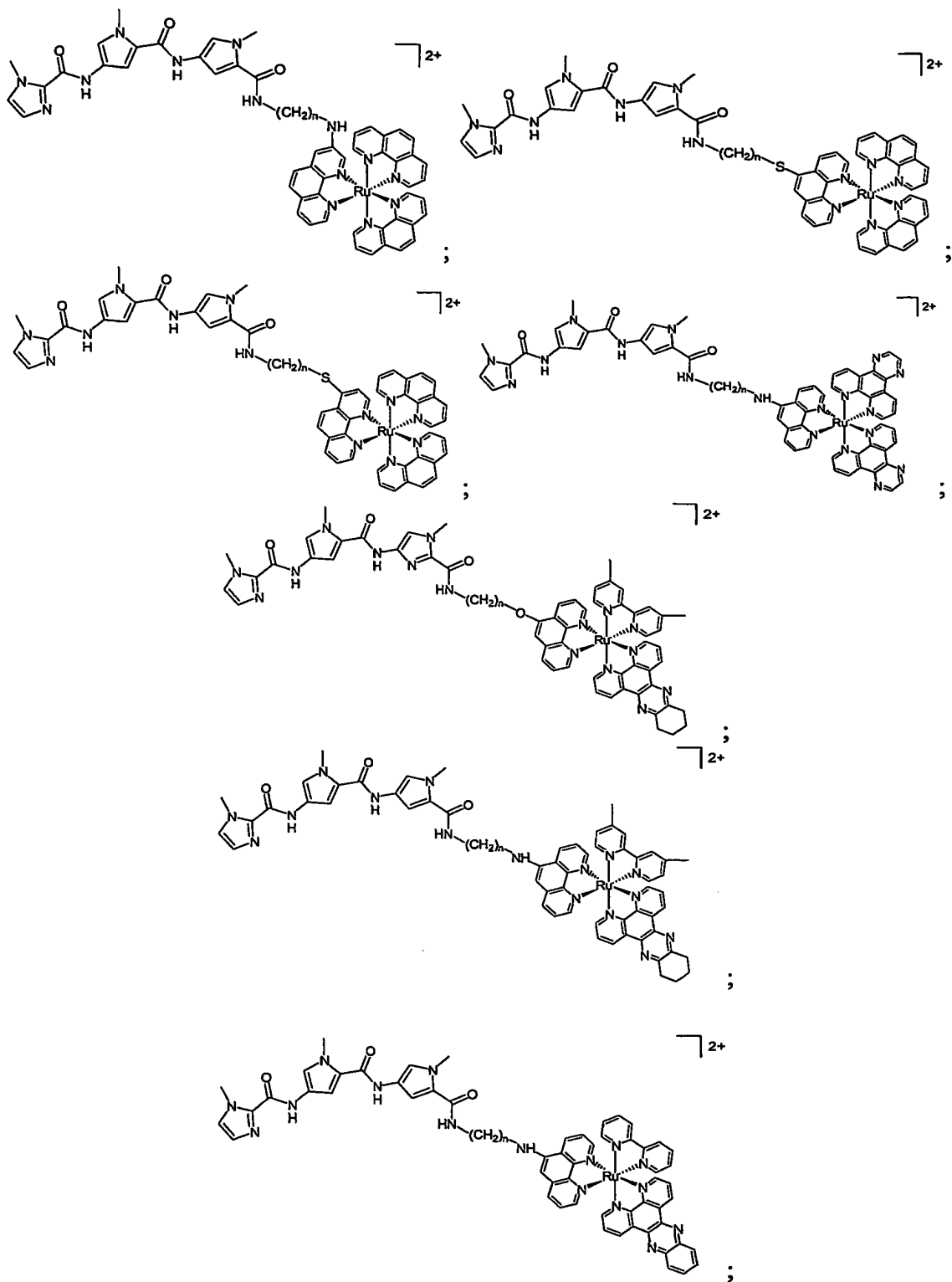


“trans-Im/Py/Py-[CONH(CH<sub>2</sub>)<sub>2</sub>-NH<sub>2</sub>)Pt(NH<sub>3</sub>)<sub>2</sub>Cl]<sup>+</sup>”;

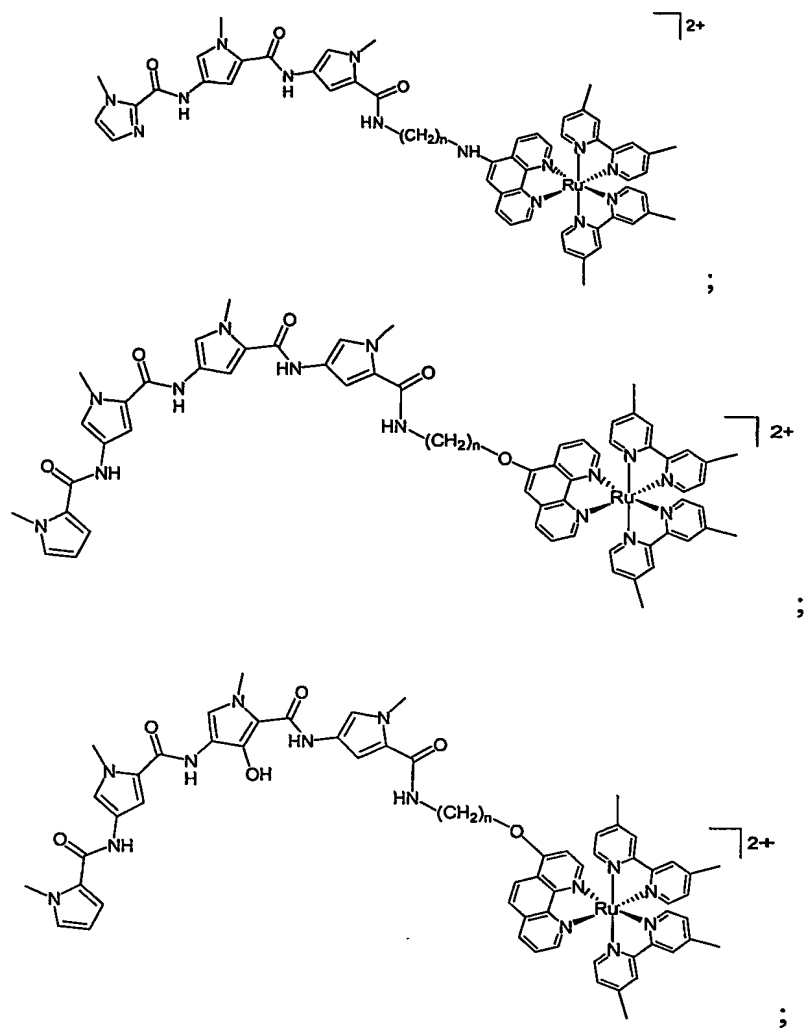
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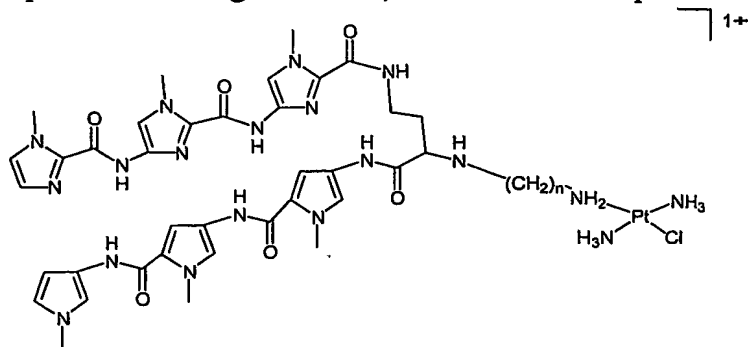


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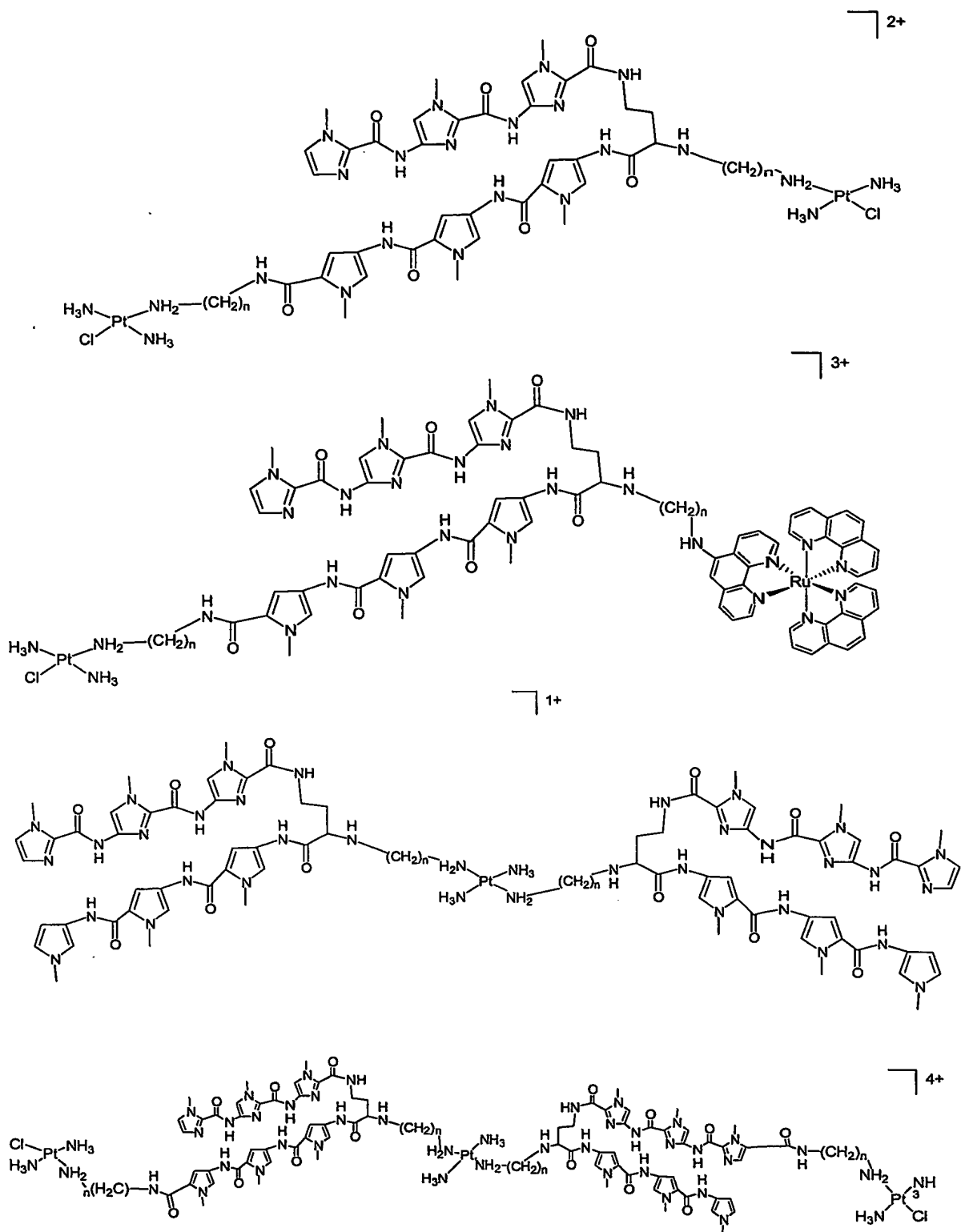


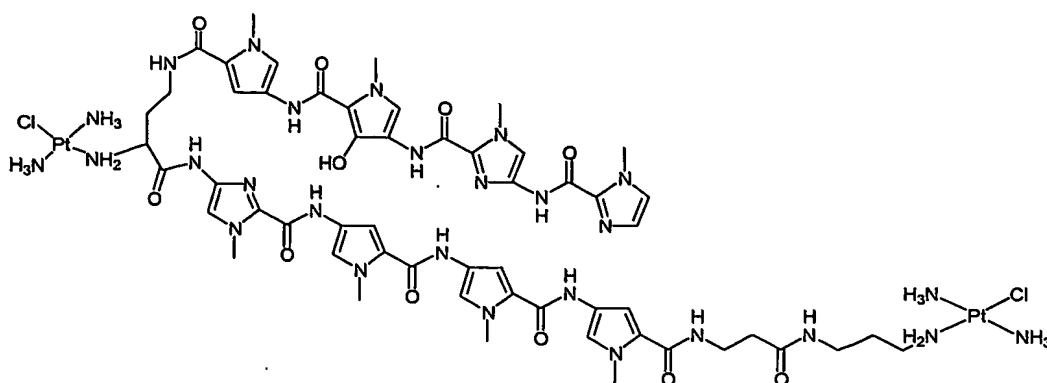
5 where  $n$  is an integer selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, or a salt thereof.

15. A compound according to claim 9, wherein said compound is selected from



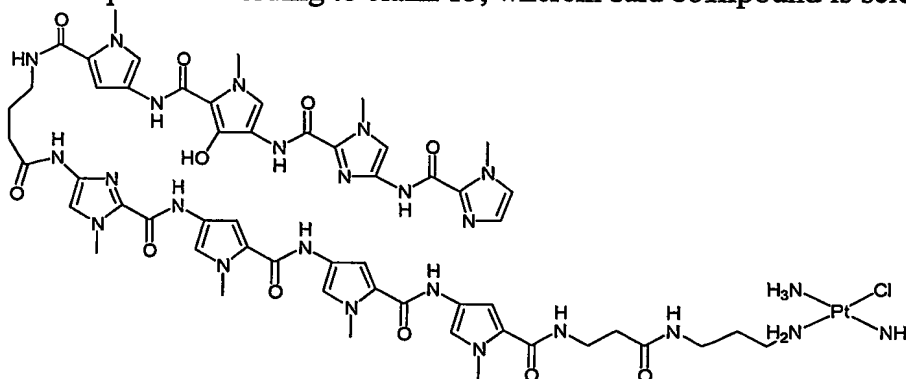
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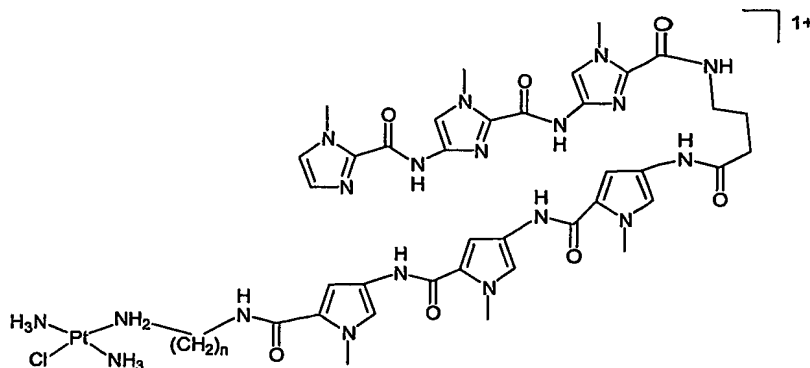
where each  $n$  is an integer independently selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, or a salt thereof.

16. A compound according to claim 13, wherein said compound is selected from



5

and



17. A pharmaceutical composition comprising at least one compound selected from a compound of formula (1) according claim 1, a compound of formula (3) according to claim 9, and a compound of formula (5) according to claim 13, together with a pharmaceutically acceptable diluent, adjuvant or carrier.

10



18. A method of targeting a therapeutic agent(s) and/or a reporter group(s) to a sequence in a polynucleotide comprising contacting biological material suspected of containing said sequence with a compound of formula (1), formula (3) or formula (5).

19. A method of treating a disease selected from cancer, HIV and Hepatitis C,  
5 said method comprising administering to a mammal in need of such treatment a therapeutically effective amount of at least one compound according to claim 1, claim 9 or claim 13, or a pharmaceutical composition according to claim 17.

20. A method of diagnosis comprising contacting a biological sample with a  
10 diagnostically effective amount of at least one compound according to claim 1, claim 9 or claim 13, or a pharmaceutical composition according to claim 17.